

HEALTHY *Edge*



Active Living Park Design Guidelines

**Department of Parks & Recreation
County of San Diego**





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EXECUTIVE SUMMARY

Obesity and other health issues are epidemic in the United States due to a variety of factors. The County of San Diego is taking a proactive view of the health related issues and invites the community to make healthy choices in nutrition and in increasing activity levels.

These park development design guidelines have set out to identify causes and prescribe methods through its built elements to increase activity levels in County Parks. This resolve has identified the following mission as its goal:

Develop comprehensive park design guidelines for active living that consider the health impacts on communities through accessibility, demographic needs, aesthetics, safe and clean environments, diversity, innovative design and creative partnerships.

To accomplish this goal within the built environment of parks, a design process is necessary to create a successful project. These design principles are typical within most design disciplines and require a preliminary emphasis on public participation, human needs and values as well as investigating site opportunities and constraints.

Please note, as a convenience to the reader, a summary check list is provided in blue to summarize key subject points throughout this document. Research has identified the following objectives to support the mission to increase activity levels within county parks. They include:

- Locating parks for access to multiuse trails in order to connect to schools, shopping centers and transportation venues.
- Providing safe environments to encourage park visits in which to explore new active element options.
- Providing elements to support diverse activity for all demographics.
- Providing aesthetically pleasing and clean environments.
- Providing innovative, non-structured, non-traditional design to promote both physical and mental activity.

- Establishing unique partnerships that support active lifestyles.

These design guidelines are meant to serve as a baseline to increase activity levels within County Parks. These guidelines should be dynamic, requiring revisions to meet changing times and populations. By utilizing these design guidelines to increase activity levels, County Parks can play an important role to remedy current health issues in our communities.

INTRODUCTION

The Department of Parks and Recreation (DPR) has long encouraged healthy living strategies for personal choices toward better health. These strategies have been officially adopted by the San Diego County Board of Supervisors through the “Live Well, San Diego!” initiative, a ten year health strategy to improve the health and well-being of county residents. The “Live Well, San Diego!” strategy has four major themes: 1) Build a Better Service Delivery System; 2) Support Healthy Choices; 3) Pursue Policy Changes for a Healthy Environment; and, 4) Improve the Culture from within. This initiative specifically calls upon county government to “allow people to make healthy choices” in an effort to fight three behaviors: poor nutrition, tobacco use and inactivity that contribute to four chronic diseases which kill more than 50% of Americans. This disturbing behavioral phenomenon is more commonly known as the “3-4-50” principle and is a significant source of stress on the health care system, economy, families and personal lifestyles. DPR seeks to help relieve this stress by offering an advantage, an edge up, a cutting edge...or a “healthy edge” toward a thriving and vibrant life for all park visitors.

33% of youth watch 3 hours of TV per day while those that exercise for the same period is 18%. (Source: Youth Risk Behavior Surveillance System, CDC, 2009)

The Problem

The “National Prevention Strategy: America’s Plan for Better Health and Wellness” published by National Prevention, Health Promotion, and Public Health Council confirms the childhood obesity trend throughout the United States with the following key facts:

- At least 40 percent of adults and 80 percent of adolescents do not meet the Physical Activity Guidelines for Americans.
- Less than 4 percent of elementary schools, 8 percent of middle schools, and 2 percent of high schools provide opportunities for daily physical education.
- Only 13 percent of children walk or bike to school, compared with 44 percent a generation ago.
- The average 8 to 18 year old is exposed to nearly 7.5 hours of passive screen time (e.g., television, videos, computers, smart phones, video games) every day.
- More than a quarter of trips made by car are within one mile of home.
- Physical activity levels are lower in low-income communities and among racial/ethnic minority children due in part to people feeling unsafe in their communities.
- Activity levels decline with age, despite physical (e.g., falls prevention) and emotional (e.g.,



Research shows that physically active and fit children tend to have better academic achievement.

decreased levels of depression) benefits.

- Physical inactivity is a primary contributor to one-third of the adult population being overweight or obese and one in six children and adolescents being obese.

In an effort to combat this American health crisis, 'Healthy People 2020', an initiative of the Centers for Disease Control and Prevention and the President's Council on Fitness, recommends that students be engaged in moderate to vigorous physical activity (MVPA) each day.

Moderate physical activity refers to activities equivalent in intensity to brisk walking or bicycling. *Vigorous physical activity* produces large increases in breathing or heart rate, such as jogging, aerobic dance or bicycling uphill. The Physical Activity Guidelines for Americans recommend that children and adolescents participate in at least 60 minutes of MVPA most days of the week, preferably daily, in order to attain health benefits. Engaging students in moderate to vigorous physical activity (MVPA) prepares them to lead physically active lives and can improve health and academic outcomes.

County of San Diego Response to the Obesity Problem

In October 2004, at the recommendation of Supervisors Pam Slater-Price and Ron Roberts, the San Diego County Board of Supervisors unanimously voted to support and fund the creation, coordination and implementation of a Childhood Obesity Master Plan to end childhood obesity. With input from multidisciplinary partners, community residents and others, the steering committee developed in 2006 the *Call to Action: San Diego County Childhood Obesity Action Plan (Action Plan)*. The *Action Plan* emphasizes policy and environmental changes with the recognition that it is easier for individuals to make healthy choices to reduce and prevent childhood obesity when their physical and social environments support these choices. The objectives of the *Action Plan* include the following:

- Building awareness about the problem of childhood obesity.
- Serving as a guide for all agencies, institutions and neighborhoods in San Diego County.
- Planting a seed and building momentum for action without being prescriptive.

- Connecting those already working on this issue with new organizations and new sectors.
- Ensuring that strategies emphasize policy and environmental changes, not just individual and family efforts.
- Creating a plan document that supports community partners.

The “Environmental” Approach

Causes for obesity have been identified from a variety of factors. The economy, existing built environment, technology, socio-cultural behaviors, litigious culture, crime and fast food have all contributed to sedentary and poor nutritional lifestyles. For example, budget cutbacks have reduced or eliminated school physical education and athletic programs; crime has forced kids indoors to watch TV; residents in under-served areas without healthy retail options are forced to shop at fast food stores; playgrounds are closed when overly litigious groups file claims; rural and suburban communities ride in vehicles rather than walk to destinations, while urban residents fear walking on unlighted paths to schools and centers.

Because of the complexity of factors affecting health, The *Action Plan* steering committee utilized an ecological model of health promotion in the development of their plan. This model takes into account the physical and social environments and their relationship to people at individual, interpersonal, organizational and community levels. The ecological model addresses multiple levels of behavioral influence and offers a comprehensive approach to preventing childhood obesity.

San Diego County Childhood Obesity Initiative

Following publication of the *Action Plan* in 2006, the San Diego County Childhood Obesity Initiative was formed to engage community partners and assure effective implementation of the strategies outlined in the plan. The San Diego County Childhood Obesity Initiative is a public/private partnership whose mission is to reduce and prevent childhood obesity in San Diego County by creating healthy environments for all children and families through advocacy, education, policy development, and environmental change. The purpose of the Initiative is to create, support, and mobilize partnerships among multiple domains; provide leadership and vision; and coordinate county-wide efforts to prevent and reduce childhood obesity. The county envisions healthy kids



Many factors contribute to obesity; including the economy, environment, technology, socio-cultural behaviors, litigious culture, fast food and crime.

and healthy options for all families no matter where they live, work, play, worship, or attend school.

Goals of the Initiative include:

- Increasing opportunities for all children and families to access and eat healthful foods in a culturally appropriate manner.
- Increasing opportunities for all children and families to engage in physical activity in an inclusive and culturally appropriate manner.
- Increasing other opportunities to enhance economic, social, service, and built environments.
- Promoting operational excellence of the public/private partnership.

“...allow people to make healthy choices”.



An activity-friendly environment is a place that makes it easy to make the choice to be physically active, through planned exercise or routine daily activity.

ACTIVE LIVING HISTORY AT DPR

DPR's 2010-2015 Strategic Plan defines its mission as enhancing the quality of life in San Diego County by providing opportunities for high level parks and recreation experiences and preserving regionally significant natural and cultural resources. Goals to accomplish this mission for the next five years are:

- Enhance the Quality of Life
- Maintain Safe and Accessible Parks and Facilities
- Create Community
- Preserve and Manage Natural, Historic and Cultural Resources
- Educate the Public

Strategic Plan Objectives to reach these goals that increase activity levels within parks are:

- Providing and promoting healthy and active lifestyles
- Offering a diverse selection of affordable and high quality choices for families to recreate together
- Creating trail networks that connect communities
- Providing inviting and accessible places to recreate
- Taking measures to increase safety and security
- Celebrating community diversity
- Designing, developing and operating environmentally sustainable facilities

By definition, a parks department encourages healthy living choices. DPR, in particular, has long employed a dynamic balance of active and passive recreation options through both its built elements and programs. Active recreation facilities such as baseball, soccer, basketball are scattered throughout the park system and encourage team and tournament play. A host of children's playgrounds exist in many of the parks. In 2006, county parks introduced a healthy option



Sweetwater Regional Park, Bonita, CA

vending program that requires 100% of all products in the vending machines at all community and teen centers to be healthy. In 2008, county park policy banned smoking on park property. Community gardens have been built at 4S Ranch and Tijuana River Valley Parks. Senior lunches are provided at three community centers. Recently, popular exercise fitness circuits have been built at Jess Martin, Spring Valley and Lindo Lake parks, while a fourth exercise circuit is soon to be constructed at Sweetwater Lane Park. Additionally, there are hundreds of recreation programs throughout the park system that promote physical activity.

However, are we doing enough? A traditional ten-acre county park has ball fields, a children's playground, picnic areas, parking lot, restroom building and lots of grass. See figure below. While the ball fields and playgrounds offer moderate activity levels for a limited demographic, the "Live Well, San Diego Initiative" calls on us to question whether we can do more to provide diverse, stimulating activity in order to promote return visits.

30 minutes of moderate to vigorous physical activity (MVPA) a day for adults, 1 hour of MVPA for children.



ACTIVE LIVING DESIGN GUIDELINES

*A*ctive living is a way of life that integrates physical activity into daily routines. The goal is to accumulate at least 30 minutes of moderate to vigorous physical activity (MVPA) each day for an adult and one hour per day of MVPA for a child. Individuals may do this in a variety of ways, such as walking or cycling for transport, exercise for pleasure and fitness, participating in sports (both organized and informal), playing in the park, working in the garden, taking the stairs, walking the dog, and using recreational facilities.

Why do we need design guidelines? The intent of design guidelines is to promote functional, attractive, and well-built park facilities, while allowing for imaginative design of the park setting. Guidelines for activity areas should be designed in an arrangement that encourages appropriate use, access, surveillance and buffers incompatible activity while providing complementary activity to create a sense of place, pleasure and unity of the whole. Please refer to the Appendix for a more complete park design process to use in conjunction with these Active Living Design Guidelines.

These design guidelines are an instrument to provide direction for implementing and enhancing activity levels within county parks and the community. Good park design should meet the needs of the users, be diverse and intriguing, connect people with place and provide the visitor with a positive identity and experience. These guidelines support and elaborate on DPR's active living mission, goals and objectives. Essentially, designers should enable the user to make the healthy choice, the easy choice.

Designers should enable the user to make the healthy choice, the easy choice.

ACTIVE LIVING FOR FUTURE PARK DEVELOPMENT

Understanding the design process can help the project manager achieve the best outcomes for a sustainable and active park. In order to apply design concepts to increase activity levels in the built environment of a park, DPR has identified its mission as:

Develop comprehensive park design guidelines for active living that consider the health impacts on communities through accessibility, demographic needs, aesthetics, safe and clean environments, diversity, innovative design and creative partnerships.

This mission statement will guide our future park development and challenge the department to not only enrich our traditional approaches, but reach out to more diverse populations by offering a variety of passive and active elements for the county resident to utilize.

In order to determine if DPR's active living mission is on course, goals and objectives are necessary. This journey should be considered dynamic and adapt to changing demographics, trends and economic environments. Below are a few objectives to begin this task. These objectives arose from a variety of active living research.

Siting.

- ❖ Site new parks near trails, transportation corridors, under-served, low-income, & denser populations

Safety.

- ❖ Provide elements that increase safety or perceptions of safety within parks to encourage park visits

Diversity.

- ❖ Provide elements to encourage diverse activity for all demographics



Aesthetics.

- ❖ Provide aesthetically pleasing and clean surroundings to encourage park visits

Innovation.

- ❖ Provide innovative, non-structured, non-traditional design to promote both physical and mental activity

Partnerships.

- ❖ Establish partnerships to increase physical activity opportunities in parks

Goals cannot be attained without measureable results to assess successes. Ongoing evaluation to determine what is working and what is not working should be in place for periodic peer review. Refer to the Appendix for a matrix of DPR's community parks with a simple checklist to assess if current conditions are satisfying active living objectives. From manager's responses, points are tallied for each park where an activity attribute is identified. Focus should be placed on those parks with low activity attribute scores in an effort to increase activity elements in that park.

Park Active Living Objectives

As was discussed earlier, major objectives that arose from current research and literature were identified. Let's examine those objectives more closely in an effort to better understand the rationale to create more vital and active park environments.

SITING

- ❖ **Objective: Site new parks near trails, transportation corridors, denser populations, lower income populations. Seek opportunities to connect existing parks to surrounding infrastructure.**

Locating a Park within a Community

A substantial body of research shows that certain aspects of the transportation infrastructure (public transit, greenways and multi-use trails, sidewalks and safe street crossings near schools,





Proposed network of open spaces surrounding the city of Milan, Italy

bicycle paths, traffic-calming devices, and sidewalks that connect schools and homes to destinations) are associated with more walking and bicycling to offer greater physical activity and lower obesity rates. Walking is an excellent exercise for all age groups. By encouraging walking between neighborhood destination zones, a synergy occurs that increases activity levels. Studies have shown that adults living in “walkable” neighborhoods are more physically active. Other studies show that children engage in more regular, sustained physical activity when they are able to walk or bike from home to school or other local destinations. Disjointed trails and transportation links discourage use within parks and activity centers. Refer to the figure illustrating the green belt around Milan, Italy which links existing parks and open zones between them. According to the map, the green belt will become the core of a more extensive system of green spaces that will link to existing public plazas and squares within metropolitan Milan, Italy. If this medieval city can provide this extensive network of green spaces, the county of San Diego should be able use Milan as a model for its neighborhoods. Refer to the Appendix for a comparison map of San Diego County ratio of populations to park lands. This map illustrates current and future housing units as of 2012 in conjunction with local and regional County Parks and points out where new parks, trails and open spaces might occur to support future linkages.

Park Siting within a Community - Design Considerations:

- ✓ Are there safe routes to schools and other destinations?
- ✓ Are there existing easements to utilize for trail networks?
- ✓ Are multi-use trails being proposed (biking, walking, equestrian)?
- ✓ Will the park have access to bus stops and other transportation corridors?
- ✓ Is the park near dense populations?
- ✓ Have lower income populations been considered when siting the park?
- ✓ Has the location been selected to take advantage of surrounding land uses?
- ✓ Are there parks near schools to encourage after school activities?

Site Specific Park Issues

Site specific park issues should begin with an opportunity and constraints analysis. This effort should consider factors such as topography, soils, prevailing winds and drainage requirements in order to identify suitable locations for specific elements within the park. Accessibility is also an important consideration for the designer to examine ADA compliance, parking, and emergency vehicular requirements that are appropriate to the proposed functions. Additional considerations should include a thorough investigation of property lines, easements, utilities, irrigation, seismic, environmental constraints and flood zone locations. All these factors are also very important to reduce costs of a construction budget

Site Specific Park - Design Considerations:

- ✓ Determine ADA accessibility requirements.
- ✓ Identify flood and seismic zones.
- ✓ Understand the natural vegetation and drainage patterns of the site to avoid erosion and soil compaction problems.
- ✓ Provide adequate street frontage for the park.
- ✓ Identify surrounding uses and neighborhood needs when locating facilities such as parking and lighting.
- ✓ Evaluate adequate parking requirements for play fields.
- ✓ Evaluate emergency access, grading, drainage and spatial requirements.

SAFETY

❖ Objective: Provide elements that increase safety or perceptions of safety

The active benefits of a park are only as good as the perception of safety it evokes. If the visitor to a park feels threatened, at risk or uncomfortable, a park stands idle and offers no activity benefit to the community or individual. Crime Prevention through Environmental Design (CPTED)



The "Broken Window Theory" suggests that one "broken window" or nuisance, if allowed to exist, will lead to others and ultimately to the decline of an entire park.

authors consider the following typical physical characteristics park users associate with high-risk environments: poor lighting, confusing layout, physical and aural isolation, poor visibility, no access for help, areas of concealment, poor maintenance, vandalism and the presence of "undesirables". Safety considerations when planning, designing or improving a park should incorporate the following factors:

- Isolation in parks
- Layout and legible design
- Visibility and sight-lines
- Access and circulation
- Lighting

Isolation in Parks

The "eyes on the street" approach to park planning and design is to increase the opportunities for informal surveillance and reduce the number of isolated places where crime can take place unseen. But, while people feel safer when they can be seen and heard by others, it would be difficult and possibly undesirable to achieve this at all times, in all types of park settings. For example, naturalized parks can be visually and aurally isolated places, yet one study found that a diverse landscape of tall grass meadows, shrub thickets and woodlands was not only the most feared but also the most valued (Burgess et al., 1988). This paradox presents an interesting challenge: How can natural areas be planned in a manner which mitigates the apprehension and isolation associated with them? Experience has shown that no one solution prevails. What is vitally important is to provide choices and information so that users can make informed decisions. Safety should be a primary consideration along main routes through parks and between the park perimeter and the street. In more isolated natural areas, possible dangers should be recognized by means of clear signage and legible layouts that direct people toward more heavily populated areas but does not remove the freedom for users to explore alternative routes if they so choose. Factors to consider are:

Design Considerations:

Supporting Park Activity

- ✓ Has the location and design of the park been selected and planned to take advantage of surrounding land uses?

Informal Surveillance

- ✓ Is the park or areas of the park in the line of sight of nearby houses, apartments, stores or activity areas to assure visibility?
- ✓ Have “Park Watch” schemes been considered to encourage surveillance by local residents and merchants?

Balancing “Negative” Land Uses

- ✓ Have measures been considered to lessen the impact of vacant, derelict or problematic land uses near a park site?

Intensive Activity to Reduce Isolation

- ✓ Are activity areas clustered to provide greater informal surveillance within and between areas?
- ✓ Have restrooms been located beside a major activity area or park entrance to encourage surveillance?

Access to Assistance

- ✓ Have security cameras and emergency lighting devices been installed in visible locations to reduce feelings of isolation and to improve access to assistance?



*Guajome County Park,
Oceanside, CA*



Security cameras can decrease crime activity and increase the overall perception of safety.

Layout and Legible Design

Legibility refers to the clarity of the environment. It has been described as the degree to which a space is understandable; the ease with which its parts can be recognized and organized into a coherent pattern (Lynch, 1960). When a park is legible, users are able to form clear, accurate images of it. An ability to find one's way with ease, contributes to a sense of security and comfort. Conversely, feelings of being unsafe increase as chances for getting oriented are reduced. Also, unsafe feelings increase when familiar landmarks or points of reference are absent. Legibility is also vital for efficient pedestrian circulation as legible pathways convey a sense of easy access, of clear direction and of well-defined boundaries.

Design Considerations

- ✓ Is the layout of the park easily understood from the point of view of a first-time user?
- ✓ Are the entrances and exits easy to locate from both inside and outside the park?
- ✓ Do pathways connect with destinations?
- ✓ Does the signage direct users to key points of interest?
- ✓ Are focal points clearly visible?
- ✓ Do obstructed sightlines prevent users from moving comfortably into and around the park?
- ✓ Does the lighting help to direct movement between destinations at night?

Visibility and Sightlines

Visibility is an important factor in enhancing park users' feelings of comfort and security. Perceptions of safety increase markedly if people can see ahead and around them, and if other people are visible. Clear sightlines allow park users to verify the presence of persons whom they might find threatening. The ability to see into and out of an area is referred to as visual permeability. The presence of shrubbery, fences, walls, sharp corners, storage sheds or buildings can hinder

visibility and thus reduce perceived and actual safety. The degree of visibility that is appropriate has to be evaluated on the basis of the scale, function, context and user group of a park. Small neighborhood and downtown parks usually feel more comfortable if a considerable degree of openness is provided. In larger parks, clear sightlines along the frequently used pedestrian routes, between activity areas and along park edges are also important.

Regardless of park size, safety begins at the perimeter. If the perimeter is inviting and people can observe pleasing activity from the street, they are more inclined to enter a park (Whyte, 1981). An active and visible edge will encourage use and create a perimeter of surveillance for the park. An active edge can also increase park accessibility to user groups who may feel more vulnerable in the park interior and who are of lower mobility, such as women, children, older adults and people with disabilities.

Design Considerations:

Creating an Active Edge

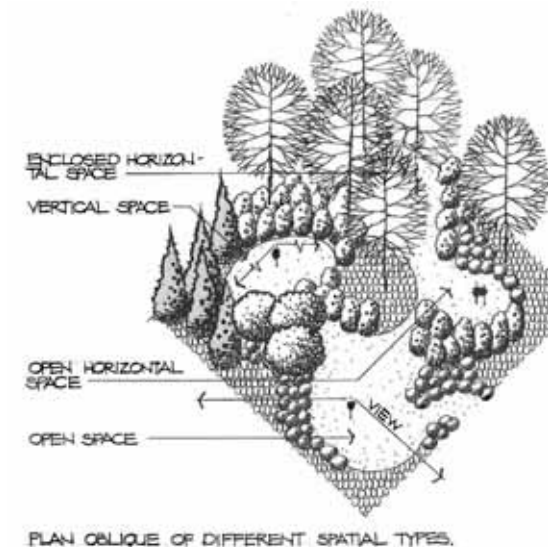
- ✓ Are the edges of the park open enough so that the passerby can see into the park and park users can see out?
- ✓ Has at least one activity or facility been located at the perimeter to create an 'active edge' visible from the street?
- ✓ Have nighttime activity nodes been located to take advantage of existing street lighting?

Legible Entrances

- ✓ Are the entrances highly visible to promote casual use by passersby?

Encouraging Surveillance

- ✓ Have activity areas such as playing fields, tennis courts and playgrounds been located so that there are clear sightlines between areas to encourage surveillance?



- ✓ Are the washrooms highly visible from nearby activity areas?

Improving Sightlines

- ✓ Have solid walls, tool sheds or plantings that reduce visibility been avoided along primary routes?

Future Sightline Barriers

- ✓ Has mature vegetation been planted close to park edges, along walkways or between activity areas that will block sightlines?

Access and Circulation

Safety can be enhanced by providing users with a choice of entrances and exits as well as routes to and from areas. The extent to which an environment allows people alternative choices of movement on a site is referred to as physical permeability (Bentley et al., 1985). A choice of direct and attractive routes will maximize legibility and physical accessibility. Alternatively, the absence of a legible and efficient circulation system may discourage use altogether or lead to a number of dead areas that are likely to become deserted creating an important precondition for undesirable activities to occur.

Design Considerations:

Alternative routes provide

- ✓ An opportunity to bypass areas perceived as threatening.
- ✓ An opportunity to avoid movement predictors: Channelized routes or “movement predictors” can be problematic because they create an opportunity for a potential attacker to calculate a person’s movement pattern and to predict their destination. Movement predictors can be especially hazardous in isolated areas.
- ✓ An opportunity to avoid entrapment areas.



Access and Circulation issues

- ✓ Does the park circulation system connect and integrate with the circulation patterns of the surrounding community to encourage maximum use?
- ✓ Are primary access routes clearly identifiable, legible and well maintained?
- ✓ Are access points clearly identifiable from the street and from within the park?
- ✓ Do major circulation routes follow “desire lines” of park users?
- ✓ Are pedestrian and vehicular routes visually connected to provide informal surveillance?
- ✓ Do park users have to travel through areas dominated by groups that might make them feel uncomfortable?
- ✓ Are pathways designed to concentrate pedestrian movement after dark along properly illuminated and well-used routes?
- ✓ Are nighttime activities clustered?
- ✓ Are pedestrian routes to recreational building entries well lit and not obstructed by landform, vegetation, structure, signage, etc.?

Lighting

The single most requested physical design modification to improve safety is usually an increase in lighting. Lighting is a key factor because it can clarify the layout of a park by emphasizing walkways, focal points, gathering places and building entrances. When planned as a coordinated system, lighting improves the night time legibility, use and enjoyment of a site. Lighting, like signage, is best developed as a hierarchy. The top of the hierarchy includes lighting activity areas and primary walkways so that they become the focus of pedestrian activity after dark. At the bottom of this hierarchy is the decision not to light some areas at all because their use at night would be un-



Lighting plays an important role in the prevention of crime.

safe or inappropriate. While lighting has been shown to reduce people's fear of crime (Middlesex, 1989), lighting alone is not the sole solution to safety-related issues. If increased park use does not result following lighting upgrades, people may feel safe in areas which are potentially unsafe.

Design Considerations:

Questions to ask about hierarchy of lighting types and intensities

- ✓ Has a hierarchy of lighting types and intensities been used to highlight activity areas and primary pedestrian routes so that they become areas of concentrated use after dark?

Enhancing Edge Activities

- ✓ Has pedestrian lighting been provided at the park perimeter to enhance the park's character, encourage use and build on the existing street lighting?

Placement of Lighting

- ✓ Are lights positioned to respond to problems of surveillance created by vegetation and topography rather than on the basis of arbitrary light pole placement?
- ✓ Does lighting need to be redirected so that it extends beyond the edge of paths to illuminate potential concealment areas and hiding places?

Consistency of Lighting

- ✓ Have lights that cause excessive glare or generate dark shadows been avoided?

Inappropriate Lighting

- ✓ Has a false sense of security been created by lighting areas that are potentially inappropriate for nighttime use?
- ✓ Has the installation of low ground-level lights been avoided where higher-level



Energy efficient solar lighting.

lighting is not also provided?

Coordination with Signage

- ✓ Is the lighting positioned to coordinate with informational and directional signage?

Other considerations

- ✓ Park pedestrian lighting should be designed to identify a person's face from 36-45 feet away.
- ✓ Strong, uneven lighting can create crimes of opportunity because users and police focus on the lit areas, but fail to notice activity in the shadows.

DIVERSITY

❖ Objective: Provide elements to encourage diverse activity for all demographics

Parks are for all people of various cultures, creeds, interests and religions which requires that park design continually adapt to changing demographics. Today, the county's population is highly diverse in terms of age, ability, ethnic and cultural background. The challenge is to take advantage of the various strengths offered by a diverse population while meeting their different and often competing needs. Park planning should also include the needs of children and both genders, as well as the elderly, culturally diverse and disabled. These needs can be identified at public meetings and workshops and through surveys, web site questionnaires and mailers.

Culture. Culture, which is usually linked to ethnicity, nationality and race, often influences how specific populations will be active or inactive. Participation in dance, swimming and cycling for example, can be encouraged or restricted by cultural traditions and by attitudes and beliefs re-



lated to gender, dress and sports participation.



Social-economic. Research has shown that people with lower incomes experience disproportionately higher rates of chronic diseases and obesity associated with less physical activity and unhealthy eating patterns. Disadvantaged populations are less likely to be able to afford or access a gym; user fees may prohibit low-income families from participating in recreation programming. Disadvantaged populations are less likely to have easy access to the places that encourage a healthy lifestyle, such as safe sidewalks, parks, paths and community gardens. When racial and class tensions persist, greater compactness and connected built environments may be perceived as a threat. Discrimination based on residential segregation may still influence the availability of opportunities for physical activity and active living.

Aging Populations. The number of citizens over age 85 will double by 2030. In San Diego County alone, this means an increase of more than 700,000 senior citizens. For the first time in history, seniors will outnumber children and youth. The anticipated growth in the aging population will result in an expected 25 percent rise in health care costs by 2030. As the baby boomers turn 65, health care costs will begin shifting from the private sector to publicly financed programs, including Medical, Medicare and local Health and Human Services agencies. Chronic diseases are the primary cause of health care costs and are responsible for seven out of every 10 deaths in the U.S., resulting in more than 75 percent of the \$2 trillion spent each year on health care. The good news is that chronic diseases are avoidable. According to the CDC, chronic diseases such as heart disease, stroke, cancer, diabetes, and arthritis are among the most common, costly, and preventable of all health problems. These chronic diseases among seniors can be reduced when diverse healthy and active lifestyles are pursued. However, the ‘boomer’ generation is looking for more than just traditional leisure activities. They want experiences that provide opportunity for autonomy/self-sufficiency, connectedness, altruism, personal growth, and revitalization, along with the activities they enjoyed in their youth. Seniors are using their financial resources to remain physically and mentally active when vacationing, trying new hobbies, exercising, and continuing their education.



Disability. People with disabilities represent a large and growing segment of the general population. Physical activity is vital for people with disabilities, not only to promote health and prevent disease but also to reduce the number of secondary conditions that can result from an initial disability. By adapting activities, changing or modifying the environment or using additional equipment that allows greater participation, people with disabilities can participate in active living. The most obvious barriers for people with disabilities are inaccessible buildings and facilities. Others

include economic issues, a lack of transport to recreation facilities, inappropriate equipment, negative attitudes and perceptions, information-related barriers and a lack of professional knowledge and training. A lack of sidewalks and curb ramps at intersections and rough surfaces on trails, paths and greenways make maintaining balance and mobility difficult.

Gender. The literature shows that “across all countries and regions and all age groups, girls are less active than boys, and the gender gap increases with age.” Possible reasons for these disparities include: gender stereotyping, a lack of support systems and programs that specifically target girls and women, under-representation of girls and women in leadership roles related to sport and physical activity, a lack of time due to domestic responsibilities and caring for children and elderly, and concerns for personal safety, especially at night.

Diversity Design Considerations:

- ✓ Conduct equity reviews to ensure that all citizens have equal opportunity to participate in sport and physical recreation programs regardless of sex, age, race, income or ability.
- ✓ Take extra steps to ensure that vulnerable populations have access to the same choices and opportunities for physical activity and active living as the larger population. Adopt county recreation policies on gender and race equality in both services and leadership.
- ✓ Promote diverse interactions by creating safe spaces where groups can celebrate and seek out their cultural peers.
- ✓ Incorporate community and cultural symbols to create a communal sense of space.
- ✓ Provide programs with educational and cultural activities that celebrate cultures.
- ✓ Provide facilities that are inclusive despite gender, age and ability.



aesthetics are a critical reflection on art, culture and nature.

AESTHETICS

❖ Objective: Provide aesthetically pleasing and clean surroundings

According to Active Living Research, scenery and pleasant surroundings were linked to increased physical activity levels in a number of studies. Data found that “people with very good access to attractive public open space were 50% more likely to achieve high levels of walking, totaling 180 minutes or more per week.”

Scholars define aesthetics as “critical reflection on art, culture and nature.” Landscape Architecture is usually considered the lead in determining aesthetics of outdoor spaces. The American Society of Landscape Architects defines landscape architecture as “the art of design, planning or management of the land, arrangement of natural and man-made elements through the application of cultural and scientific knowledge, with concern for resource conservation and stewardship, in order to provide a useful and enjoyable purpose within the environment”.

Principles of aesthetic design usually include the following elements:

Unity

Unity occurs when all of the elements of a project make a balanced, harmonious, complete *whole*. Unity is another of those hard-to-describe art terms, but, when it's present, the eye and brain are pleased to see it. Aspects of unity include:

- Repetition
- Continuation
- Closure

Emphasis /Focal Point

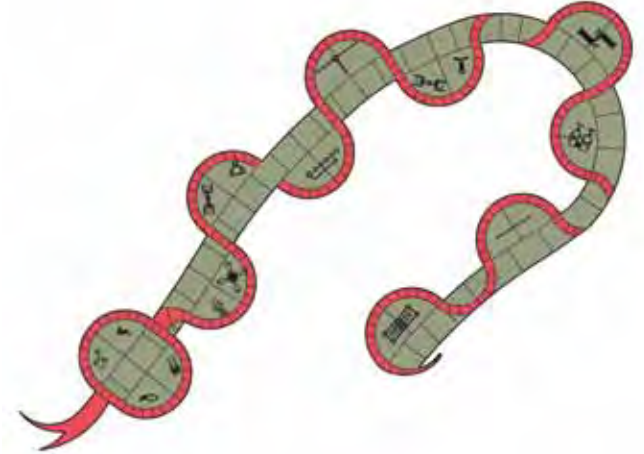
Emphasis or focal is something that is singled out or made more prominent that has emphasis. An element of a design that dominates or becomes the center of interest has emphasis. Aspects to emphasis or a focal include:



- Contrast
- Isolation
- Placement
- Absence of focal point

Balance

Balance is the concept of visual equilibrium, and relates to our physical sense of balance. It is a reconciliation of opposing forces in a composition that results in visual stability. Most successful compositions achieve balance in one of two ways: **symmetrically** or **asymmetrically**. Balance in a three dimensional object is easy to understand; if balance isn't achieved, the object tips over. To understand balance in a two dimensional composition, we must use our imaginations to carry this three dimensional analogy forward to the flat surface.



Lindo Lake Park Exercise Circuit, Lakeside, CA

Symmetrical balance can be described as having equal “weight” on equal sides of a centrally placed fulcrum. It may also be referred to as **formal balance**. When the elements are arranged equally on either side of a central axis, the result is **bilateral** symmetry. This axis may be horizontal or vertical. It is also possible to build formal balance by arranging elements equally around a central **point**, resulting in **radial** symmetry. There is a variant of symmetrical balance called **approximate symmetry** in which equivalent but not identical forms are arranged around the fulcrum line.

Asymmetrical balance, also called **informal balance**, is more complex and difficult to envisage. It involves placement of objects in a way that will allow objects of varying visual weight to balance one another around a fulcrum point. This can be best imagined by envisioning a literal balance scale that can represent the visual “weights” that can be imagined in a two dimensional composition. For example, it is possible to balance a heavy weight with a cluster of lighter weights on equal sides of a fulcrum; in a picture, this might be a cluster of small objects balanced by a large object. It is also possible to imagine objects of equal weight but different mass (such as a large mass of feathers versus a small mass of stones) on equal sides of a fulcrum. Unequal weights can even be balanced by shifting the fulcrum point on our imaginary scale.



Proportion /Scale

Proportion refers to the relative size and scale of the various elements in a design. The issue is the relationship between objects, or parts, of a whole. This means that it is necessary to discuss proportion in terms of the context or standard used to determine proportions.

Our most universal standard of measurement is the human body; that is, our experience of living in our own bodies. We judge the appropriateness of size of objects by that measure. For example, a sofa in the form of a hand is startling because of the distortion of expected proportion, and it becomes the center of attention in the room. Architectural spaces intended to impress are usually scaled to a size that dwarfs the human viewer. This is a device often used in public spaces, such as churches or centers of government. The same principle is often applied to corporate spaces through which the enterprise wishes to impress customers with its power and invincibility.

In contrast, the proportions of a private home are usually more in scale with human measure, and as a result it appears friendlier, comfortable and less intimidating.

Contrast

Contrast means pictorial elements that stand out because they are not alike, e.g. squares and circles and triangles. Red, yellow and blue contrast as they are so dissimilar. Contrast can be made by putting objects together that do not normally “go” together and therefore make each other stand out more than they would separately. Contrast gives variety and makes the elements livelier.

Movement and Rhythm/Pattern

Rhythm refers to the way your eye moves throughout a landscape. Some landscapes move you throughout in a connected, flowing way much like a slow, stately rhythm in music. Other landscapes move you from one place to another in an abrupt, dynamic way much like a fast, staccato rhythm in music will give you the impression of movement. Rhythm in parks is created by the repetition of elements. Similarity of elements or flowing, circular elements will give a more connected flowing rhythm to a park landscape, while jagged or unrelated elements will create a more unsettling, dynamic park landscape.

Variety

Variety gives a landscape interest and vitality, as the elements are repeated with enough change or difference to enhance each other. Variety, contrast and harmony work together to give unity. Too much variety leads to confusion and disunity, too little leads to boredom.

Harmony

Harmony brings together a composition with similar units. If the landscape composition uses wavy lines and organic shapes, you would want to stay with those types of lines and not put in just one geometric shape

The above aesthetic factors are necessary to offer not only a pleasant experience to the visitor but also to provide clarity and information of spatial relationships from which a theme may emerge. This theme would then communicate a unique character that is consistent with the park's activities and locations. The theme is implemented through the use of characteristic architectural details, colors, materials, furnishings, play equipment and plant selection.

Identity

Park identity communicates a positive or negative experience to the visitor through their thoughts, feelings, perceptions, images, experiences, beliefs, and attitudes. If a park communicates a unified, cohesive, consistent experience through its design elements, the visitor retains a positive image and will return to enjoy these experiences.

Cleanliness

Overflowing trash receptacles, graffiti coated walls, clogged toilets and drains, uncut lawns, debris and dead vegetation will most certainly communicate negligence, if not fear and danger to the potential park visitor. The consequence of a poorly maintained park limits activity opportunities to a community. It should be noted that lack of maintenance is often due to diminishing general funds for repairs, replacements and staffing. Vandalism and antiquated equipment can add further to the problem.

Disneyland, on the other hand, is a classic example of cleanliness which accounts for its huge worldwide success. Its cleanliness evokes "a happy land," a family friendly and vibrantly active place to enjoy and respect.



Consistent signage will provide the visitor with a positive identity of a park and its environs.

Design Considerations:

- ✓ Are all the elements of the park well balanced, harmonious, complete and whole?
- ✓ Have all focal points been addressed in order to utilize contrast, isolation, placement, and absence of focal point?
- ✓ Does the park have symmetrical or asymmetrical balance?
- ✓ Are the various elements of the park in proportion or scale to the user?
- ✓ Is contrast used in a way to create variety?
- ✓ Has movement and rhythm been addressed to create either dynamic movement or flowing rhythm?
- ✓ Is there variety in the landscape to create interest and vitality?
- ✓ Is the theme of the park consistent, evoking harmony?
- ✓ Is there adequate maintenance to provide a clean and welcoming environment?

INNOVATION

❖ **Provide innovative, non-structured, non-traditional design to promote both physical and mental activity**

Innovative design does not necessarily mean style, but rather there are creative solutions to site or regional challenges. An innovative park should:

- Inspire in an effort to elevate people's everyday experience and sense of community.
- Understand how to synthesize disparate or contradictory information in an energetic way so that the whole is greater than the sum of its parts.

Innovation does not necessarily mean style, but rather there are creative solutions to site and regional challenges.

- Demonstrate an understanding of scale and connection beyond the immediate site.
- Minimize the long-term operating expenses and create appropriate revenue generating activities to offset expenses.
- Embrace an understanding of the human relationship with the environment and demonstrate the latest best sustainable practices.
- Create a variety of experiences, that make the fullest use of the space and that attract people to use the space intensively.
- Create a sense of arrival and movement.
- Communicate the region's natural habitats, while encouraging biodiversity and ecological productivity.
- Expand on the region's farming, husbandry, natural and cultural resources and education facilities.
- Create imaginative play features to stimulate both physical and mental activity.

Innovation is creating areas within a park that excite when moving from one space to another. Innovation is providing nodes that educate, entertain and inspire. More specifically, park development innovation might include such diverse facilities for the following activities: dance contests, band contests, healthy food courts, water gardens, amphitheaters, puppet stages, velodromes, roving minstrels, freelance soap box lectures, outdoor gymnastic equipment, community retail outlets, controlled off-road vehicle courses and art walks.

Innovation can also expand both mental and physical activity to include physics play, hydrology play, observatories, farm and husbandry interaction, simulated archeological play sites, butterfly gardens, petting zoos, Koi farms, aviaries, chess tables, fire lookout towers, QR code readers for personal interpretive tours. Importantly, innovation is also about generating revenues from these





opportunities to offset operation and management expenses.

In our litigious society today, too often our playgrounds have been relegated to be a vacant sand lot or wood chip pit. From a *Metropolis Magazine* article:

“Over the past 15 years, international play safety guidelines have spawned a ubiquitous crop of red, yellow, and blue structures rooted in ‘impact-attenuating’ surfaces. The design problem is especially acute in the United States, where a litigious culture first eviscerated the seesaw, then the merry-go-round, and increasingly threatens the swing set. Critics claim that by eliminating spontaneity and risk from children’s play not only discourages physical activity, but deprives young people of the experiences they need to grow and develop as individuals.”



How can DPR get past this banality in playground and park design and put back vitality, activity and a sense of adventure in our parks? While not altogether abandoning the traditional, “safe” playground, the designer may want to investigate the following “edgier” active elements to include a larger demographic such as: zip lines, adventure playgrounds, regionally historic theme playgrounds, “geocaching” treasure hunts, rock climbing, paint ball, archery, rowing crew, boot camps, triathlon courses, hill slides, fitness obstacle courses, skate parks, stair step coasters, tree house climber, land sailing vehicles, ballooning, kite flying, radio controlled model aircraft, dude ranch camping, corporate/school team-building retreats. If that’s too much excitement, take a look at play sculptures, music walls, dog training and dog show parks, rodeos, water hydraulic play, frisbee course, tai chi programs, golf driving range, yoga and miniature golf.



Environmental sustainability is innovative but does not directly increase activity levels at parks. However, by demonstrating sustainable practices at parks, the visitor can be motivated to apply these techniques at home and work off a few pounds at the same time. Some examples of environmental sustainability and LID (low impact development) innovations in a park might include xeriscapes, bioswales, wind farms, solar installations, green roofs, community gardening, water harvesting, smart irrigation controllers and drip systems, water detention for aquifer replenishment and fire vegetation management with farm animals. As these innovations are costly to implement, a cost-benefit evaluation should be reviewed to determine long term feasibility and return on investment. More “shovel-ready” and cost effective projects could include an algae or cellulose farm for bio-energy production, medicinal garden, herb garden, poison plant identification and a healing garden. A park might also want to provide demonstration areas concerning current regulatory requirements such as watershed and storm water quality management, recycled water methods, hazardous materials identification and management, pest management,



tree pruning, mulching, and composting. All environmental sustainability innovations should be communicated to the park visitor through an easily understandable interpretive program in order to apply these sustainable practices at home.

When considering a green building or site, review the following checklist:

Green Building or Site Design Checklist

All projects including new construction or major renovations should consider pursuing a LEED rating from the US Green Building Council. Other “green” sources for information would be the LEED website or San Diego Regional Energy Office. These sources often include information about assistance and incentive programs available. There are several energy efficient options on the market that exceed Title 24 requirements by up to 30%. Consult a mechanical engineer for options. For Storm Water Pollution Prevention (SWPP), Low Impact Design (LID), County Fire Defensible Space Guidelines and County Landscape Ordinance (native and drought tolerant plants) issues, please refer to the Appendix for web site locations.

Green Design Considerations:

Natural Heating and Cooling

- ✓ Buildings and other structures should be located to take advantage of prevailing winds and solar angles.
- ✓ Provide tree shading of buildings at southwest corners in hot climates and ever-green trees to block prevailing cold winds.
- ✓ Operable windows should be utilized where possible and consider mechanical operation to reduce staffing requirements.
- ✓ Light, cool exterior colors should be utilized to further reduce heat gain.
- ✓ Consider alternative methods of heating and air conditioning of new buildings, such as hydronic radiant floor heating or swamp cooling. Coastal locations may not even need heating.



Energy Savings

- ✓ Limit heating and cooling of unused rooms to reduce energy consumption.
- ✓ Highly efficient windows will reduce loss and reduce air conditioning requirements.
- ✓ Weather stripping is also helpful to identify during design.
- ✓ Windows should be operable when possible (noted previously).
- ✓ Energy efficiency (prevention of loss and gain) can also be increased with proper foundation and roofing materials, e.g. cool roof.
- ✓ Take advantage of natural light sources via sun roofs, building angle and fenestration.
- ✓ Insulation material helps to further conserve.
- ✓ Use timed or motion sensor lighting.
- ✓ Use photocells for all exterior lighting.
- ✓ Use energy efficient light fixtures and bulbs.
- ✓ Consider the feasibility of using solar to offset energy use.



Pervious pavement captures storm-water and allows it to seep into the ground which then recharges groundwater, reduces stormwater runoff and meets the EPA stormwater regulations.

Water Conservation

- ✓ Consider gray or recycled water use for the landscape. As the upfront costs are substantial, analyze the costs/benefits over time.
- ✓ Consider native, drought tolerant landscaping.
- ✓ Consider drip irrigation wherever possible.

- ✓ Provide a “wellness check” to existing irrigation systems to assess the irrigation efficiency.
- ✓ Consider web-based irrigation master controllers using evapo-transpiration (ET) technology to monitor irrigation on a “real-time” basis and to centrally control irrigation systems during rain events in the park.
- ✓ Consider low-flush toilets, waterless urinals and faucet sensors at restroom facilities.
- ✓ Consider harvesting rainwater for irrigation from roofs and detention areas.



Recycling and Waste Reduction Methods

- ✓ Include recycling containers near all trash cans.
- ✓ Focus on main recycling items like aluminum, glass and plastic.
- ✓ Consider other recycling options if staffing available.
- ✓ Consider hand blowers in lieu of paper towels in restrooms. Hand blowers also have lower maintenance cost.
- ✓ Consider reuse of items demolished at a site, e.g. concrete, lumber, tree waste.
- ✓ When replacing old pavilions and play equipment, consider donating these structures to non-profit organizations.
- ✓ Seek to use recycled content products in new construction, including concrete, and lumber. In some instances recycled content products may be a cheaper alternative.

Provide choices & information so that users can make informed decisions.

Reduce Impervious Surfaces

- ✓ Consider green roof on new buildings to reduce energy consumption and storm

water run-off.

Use decomposed granite (DG) surfacing in lieu of pavement or concrete. Stabilizing DG with a bonding agent is ADA compliant.

- ✓ Use porous concrete or paver system.
- ✓ Use bio-swales to percolate and cleanse pollutants from run-off before reaching aquifers.

Improve Public Experience

- ✓ Provide sustainability exhibits for the park visitor to take away and employ at home.
- ✓ Allow for alternate modes of transportation including bicycle parking, equestrian parking and trail access.

General Improvements

- ✓ Use local construction materials where possible to reduce material transporting.

PARTNERSHIPS

❖ Objective: Establish partnerships to increase physical activity opportunities in parks

Increasingly partnerships are an essential and effective means for the Department of Parks and Recreation to fulfill parts of its mission and foster a shared sense of stewardship that is crucial to its future. In difficult economic times, it is additionally important to seek out groups with shared goals for both manpower and fiscal resources to create a synergy that is greater than the sum of its parts. Partnerships can help build a community vision, empowering others to contribute toward community fulfillment, while securing a sound investment for the future of the region.



A partnership is a cooperative venture between two or more parties with a common goal, who combine complementary resources to establish a mutual direction or complete a mutually beneficial project. Partnerships can be facility-based or program-specific.

Partnerships can accomplish tasks with limited resources, respond to compelling issues, encourage cooperative interaction and conflict resolution, involve outside interests, and serve as an education and outreach tool. Partnerships broaden ownership in various projects and increase public support for community recreation goals. Partners often have flexibility to obtain and invest resources/dollars on products or activities where municipal government may be limited.

Benefits of partnerships are wide and varied. A few of the more significant benefits to DPR are:

- Merging of resources to create a higher level of service and facility availability for community members.
- Making alternative funding sources available for public community amenities.
- Tapping into the dynamic and entrepreneurial traits of private industry.
- Delivering services and facilities more efficiently by allowing for collaborative business solutions to public organizational challenges.
- Meeting the needs of specific groups of users through the availability of land for development and community use.

Partnerships can help build a community vision.

Benefits to partners with DPR are:

- Land and/or facility availability at a subsidized level for specific facility and/or program needs.
- Sharing of the risk with an established stable governmental entity.
- Becoming part of a larger network of support for management and promotion of facilities and programs.
- Availability of professional DPR recreation and planning experts to maximize the facilities and programs that may result.
- Availability of DPR staff facilitation to help streamline the planning and operational efforts.

A principal partnership with DPR today is The San Diego County Parks Advisory Committee whose main mission is to advise DPR on programs, issues, and long-range budget items pertaining to the department. Another similar organization is The San Diego County Parks Society which was established in 1980 by a group of citizens concerned about the future of San Diego's county parks. The Society's objective is to also assist and review park programs. They strive to increase public awareness of county parks' resources, activities, and needs. The society is a California nonprofit corporation and has federal 501 (3) (c) tax exempt status. All donations of money, land, bequests of stocks, bonds, and securities received by the San Diego County Parks Society are tax deductible.

Other notable park partnerships include the "Friends of the Park" programs who offer their time and services to protect and enhance park amenities. Many of these organizations who have a 501 (3) (c) status can offer useful financial partnerships for grants and donations. 501 (3) (c) (3) exemptions "apply to corporations, and any community chest, fund, cooperating association or foundation, organized and operated exclusively for religious, charitable, scientific, testing for public safety, literary, or educational purposes, to foster national or international amateur sports competition, to promote the arts, or for the prevention of cruelty to children or animals." These bodies are often referred to as "Friends of" organizations.

A few of DPR's larger "Friends of" organizations are:

The Friends of Goodan Ranch and Sycamore Canyon Open Space, Inc. strive to protect and enhance the natural and cultural resources, help identify, build and maintain a trail system sensitive to the area's open Space Park status. They promote awareness and responsible use of the two, interconnected open space parks, Goodan Ranch and Sycamore Canyon through interpretation, volunteering and educational activities.

The Friends of Otay Valley Regional Park is dedicated to the establishment of public recreation and habitat protection within the corridor of the Otay River Valley. This special membership group offers south Bay residents and others a chance to make a donation and contribute time to assist with the critical goals of:

- Acquiring land for the park
- Preserving sensitive open space



- Developing active and passive recreational areas
- Rehabilitating and maintaining park lands
- Supporting educational programs

The Friends of Hellhole Canyon Open Space Preserve is an all-volunteer, not-for-profit land trust and educational organization located in Valley Center, California. As an environmental education organization, The Friends work to raise awareness of the preserve's important natural resources and to support recreation and enjoyment of the preserve by the public. They also work to acquire and conserve ecologically important natural open space, enhancing and expanding the preserve's conservation footprint. Collaborating with state and county government, local foundations, and private donors the Friends have successfully added 190 acres of critically important open space to the now 1900 acre preserve.

The Friends of Los Peñasquitos Canyon Preserve is a volunteer organization that has been protecting the preserve for more than 25 years. The Friends assist the city and county rangers through such activities as leading interpretive walks, performing wildlife and other scientific studies, removing invasive exotics and replanting with natives, installing kiosks, and coordinating Scout projects. Past scout projects have included building small bridges, installing interpretive signs, building and installing owl boxes, and restoring trails.

The San Elijo Lagoon Conservancy (SELC) is a nonprofit land trust dedicated to protecting and enhancing San Elijo Lagoon Ecological Reserve and its watershed. Through membership and foundation support, SELC provides environmental education and research, conserves cultural and natural resources, and acquires additional acreage.

The San Dieguito River Valley Conservancy is a nonprofit, citizen-based organization helping to implement the San Dieguito River Park and its Coast-to-Crest Trail stretching 55 miles from Volcan Mountain near Julian to the ocean between Del Mar and Solana Beach.

Volunteers are an important component in the necessary operations throughout the park system. They include Live-In Hosts who provide 20 hours a week service in exchange for a campsite and hookups for a motor home or trailer. Park Patrol members assist the public with information on park resources and help to ensure visitor safety and aid in the maintenance of trails. Park Docents provide a voice to the department's interpretive programs at historic sites and include re-



search and development at the History Center. There are various volunteers at DPR's community centers that assist in clerical, maintenance, gardening, coaching and special events.

Other partnerships include Little Leagues, Soccer Leagues, and Joint Exercise Power Agreements (JEPA) between schools and jurisdictions. Other groups that coopt with parks include Boys & Girls Clubs who support athletic programming and "Save Our Heritage Organization" (SOHO) who provides custodial care over several historic park properties.

All of these existing partnerships provide useful guidance and support of the department's mission. Expanding partnerships to increase activity levels at DPR and the community will require imaginative and ground-breaking cooperatives that should complement all participating organization's goals.

Other possible partnership programs to explore that will require fiscal and legal vetting might include:

- ✓ Donors for activity infrastructure.
- ✓ Donation of vehicles for activity infrastructure.
- ✓ Membership programs for activity infrastructure.
- ✓ Trail/walk linkage partners: utility easements, storm water channels, transit departments, water districts, military, agriculture, county animal control, cemeteries.
- ✓ Public-private partnerships to develop farmer's markets, trail linkages, cafes at the park.
- ✓ Outsourced management of community gardens.
- ✓ Political bond acts to establish safe walking corridors.
- ✓ Supporting educational programs.

CONCLUSIONS

The County of San Diego Department of Parks and Recreation (DPR) is on the cutting edge to encourage physical activity that promotes fun, innovative recreational opportunities for all demographics to enjoy. It is the intent of this document to allow park visitors to make their own healthy choices by offering a wide variety of active park facilities.

These active living design guidelines are a component of a larger county effort as presented in the “Live Well, San Diego” initiative whose mission is to improve the health and well being of county residents. DPR recognizes that active lifestyles start with the individual, by “allowing people to make healthy choices”. As discussed earlier, inactivity causes health problems which are a contributing factor in the “3-4-50” principle that contributes to more than 50% of deaths in Americans today.

But what are the next steps in park design? And how do we design parks that will withstand the test of time toward active living? These design guidelines are the foundation for a new kind of park that improves health through active lifestyles.

The following are some important “active living” factors to remember when developing, designing or managing built elements in a park:

- Site new parks near trails, transportation corridors, denser populations, lower income populations and seek opportunities to connect existing parks to surrounding infrastructure.
 - Increasing access to trails and public transportation helps people maintain active life styles
- Provide elements that increase safety and perceptions of safety
 - Public areas that are well-lit have shown to make communities safer and increase use of these facilities for physical activity.
- Encourage diverse activity for all demographics through a range of elements
 - Physical activity levels are lower in low-income communities and among racial/ethnic minority children due, in part, to people feeling unsafe or to a lack of facilities in their communities
- Provide aesthetically pleasing and clean surroundings.

-People with the best access to a variety of built and natural facilities were 43 percent more likely to exercise than those with poor access.

- Offer innovative, non-structured, non-traditional design elements.

-Unstructured imaginative play also provides the opportunity for social and emotional health as well as increasing cognitive function which is essential to academic success.

- Establish partnership within the community.

-Create relationships with community, non-Profit and faith-based organizations to increase shared use of physical activity facilities and offer a diverse range of opportunities at little or no cost.

- Offer opportunities for physical activity across the human lifespan.

-As activity levels decline with age, provide diverse physical and emotional benefits for all ages.

As a reminder, please examine the appendix of this document for a more comprehensive review of the design process. This design process is fundamental in implementing active living elements in parks and open spaces. Useful web sites that support active living and sustainability issues are also found in the appendix. Much of active living research can be located on the Robert Wood Johnson, “Active Living Research: Building the Evidence to Prevent Childhood Obesity and Support Active Communities” web site and should be reviewed periodically to become familiar with the latest active living research results. That web site address is activelivingresearch.org. And finally, TreeHugger.com is a web site for a plethora of innovative, cutting edge ideas in sustainability, technology and design for the built environment.



REFERENCES

- Active Living Research. Building Evidence to Prevent Childhood Obesity and Support Active Communities. Research Brief. 2005-2010.
- Admin. Ground Magazine: Parks and Placemaking. 2011
- AESOP. Best Practice in Innovative Guidelines for the Open Space Network at Metropolitan and Local Level. 2011
- Bachin, Robin Faith. 2004. Building the South Side: urban space and civic culture in Chicago, 1890-1919. University of Chicago Press.
- Booth, Norman K., Basic Elements of Landscape Architectural Design. 1983.
- Becker, Cate. Designing playgrounds for Challenge and risk. 2010
- Cervero, Robert. Models for Change: Lessons for Creating Active Living Communities. 2007
- City of Sacramento Department of Parks and Recreation Landscape Architecture Section. Park Design Guidelines. 2001
- City of San Diego. Chollas Creek Enhancement Program. 2002
- County of San Diego Health and Human Services Agency. LIVE WELL, SAN DIEGO! Project Highlights and Accomplishments Second Quarter Report. 2011.
- County of San Diego Childhood Obesity Initiative. 2011 Local Public Policy Priorities. 2011
- County of San Diego Department of Parks and Recreation. Cost Recovery, Resource Allocation and Revenue Enhancement Plan. 2011
- County of San Diego. Parks Development Projects. 2011
- CPTED Security. Crime Prevention through Environmental Design. 2005
- Edwards, Peggy. Agis Tsouros. World Health Organization Europe. Promoting physical Activity and active living in urban environments. 2006
- Henderson, Karla A., Linda J. Neff, Patricia A. Sharpe, Mary L. Greaney, Sherer W. Royce, and Barbara E. Ainsworth. Spring 2001. "It Takes a Village' to Promote Physical Activity: The Potential for Public Park and Recreation Departments." Journal of Park & Recreation Administration 19 (1): 23-41
- Jensen, Clayne R., and Steven Guthrie. 2006. Outdoor recreation in America. Human Kinetics.
- Johnson, Paige. The New Way to Play. 2011
- King, Abby C., Robert W. Jeffery, Fred Fridinger, Linda Dusenbury, Susan Provence, Sona A. Hedlund, and Kathy Spangler. 1995. "Environ-

mental and Policy Approaches to Cardiovascular Disease Prevention Through Physical Activity: Issues and Opportunities.” *Health Education & Behavior* 22 (4) (November 1): 499 -511.

Killingsworth, RichardJames. 2003. “Promoting Active Living.” *Parks & Recreation* 38 (3) (March): 48.

LaGrange, RandyL., Kenneth F. Ferraro, and Michael Supancic. 1992. “Perceived Risk and Fear of Crime: Role of Social and Physical Incivilities.” *Journal of Research in Crime and Delinquency* 29 (3): 311 -334.

Lehrer, Jonah. *Unstructured Play*. 2009

Loukaitou-Sideris, Anastasia, and Orit Stieglitz. 2002. “Children in Los Angeles Parks: A Study of Equity, Quality and Children’s Satisfaction with Neighbourhood Parks.” *The Town Planning Review* 73 (4) (October 1): 467-488.

Low, Setha M., Dana Taplin, and Suzanne Scheld. 2005. *Rethinking urban parks: public space & cultural diversity*. University of Texas Press.

MacMillan, Douglas. *Serious Playground*. 2006

MacPherson, Karen. *Experts call unstructured play essential to children’s growth*. 2002

McKay, Tom. *What Makes a Park Safe?* 2000

Martial Cottle Park State Park General Plan and County Park Master Plan. *Draft Final Design Guidelines*. 2010

Michigan Department of Community Health. *Design Essentials for Active Living*. 2011

National Park Service U.S. Department of the Interior. *Partnerships Web Site*. 2011

PlayCore Inc. *Nature Grounds*. 2009

Platt, Rutherford H., and Lincoln Institute of Land Policy. 2006. *The humane metropolis: people and nature in the 21st-century city*. Univ of Massachusetts Press.

PPS. *Project for Public Spaces. What Role Can Design Play in Creating Safer Parks?* 2011

Rrc Associates, Inc. County of San Diego Parks and Recreation, GreenPlay LLC. County of San Diego Department of Parks and Recreation *Cost Recovery, Resource Allocation, and Revenue Enhancement Survey Results*. 2010

Sallis, James F., Melbourne F. Hovell, C. Richard Hofstetter, John P. Elder, Mimi Hackley, Carl J. Caspersen, and Kenneth E. Powell. 1990. “Distance between Homes and Exercise Facilities Related to Frequency of Exercise among San Diego Residents.” *Public Health Reports* (1974-) 105 (2) (March 1): 179-185.

San Diego County Department of Parks and Recreation. *Chapter 2: Needs Assessment*.

Schilling, Joseph M., Billie Giles-Corti, and James F. Sallis. 2009. "Connecting Active Living Research and Public Policy: Transdisciplinary Research and Policy Interventions to Increase Physical Activity." *Journal of Public Health Policy* 30 (January 1): S1-S15.

Shelby Farms Park Conservancy. Request for Qualifications: Shelby Farms Park Innovative Design Competition. 2007

Sparling, Phillip B., Neville Owen, Estelle V. Lambert, and William L. Haskell. 2000. "Promoting physical activity: the new imperative for public health." *Health Education Research* 15 (3) (June 1): 367 -376. doi:10.1093/her/15.3.367.

Swan, Dr. Avril. Why Children need more unstructured play. 2011

Thomas, Mike. Innovative Playground Design. 2006

Treasure Coast Research Park. The Green Details. 2011

University of California, Berkley. Recreational Resources Promote Active Living. 2011

Zukin, Sharon. Politics and aesthetics of Public Space: The "American" model. 1998

Park Design Process

The design process usually begins with planning the project. Planning is often performed in consultation with parks staff and includes an evaluation of existing recreational resources, needs of the neighborhood, and appropriate public participation. From this evaluation, a design program that describes the objectives of the proposed park in terms of physical character, activity, and the expected user experience is developed. Following this effort, park staff will develop an activity analysis and identify the relevant participant, support, resource and facility factors that are essential to the anticipated recreational experience and proposed park plan. This will include equipment needs, activity period, user profile, participation parameters, and area, utility, access and other design considerations.

As a convenience to the reader, a summary check list is provided in blue to summarize key subject points. With the planning parameters defined, the following steps can be followed:

- ✓ Perform an appropriate analysis of relevant on-site and off-site factors and provide a site analysis report and diagram, at suitable scale.
- ✓ Investigate soils, geology, hydrology, vegetation, topography, climate, land-use, utilities, and demographic / cultural issues.
- ✓ Provide a clear statement of the design objectives derived from the design program.
- ✓ Develop alternative concepts plans that result from the synthesis of the design program and the site analysis.
- ✓ Delineate the pros and cons of each concept, indicating the different approaches, priorities and compromises of each alternative.
- ✓ Evaluate alternatives and recommend a preferred concept plan.
- ✓ Refine the selected concept plan through focused data collection, if neces-



sary, and further design exploration.

- ✓ Develop an appropriate physical setting that promotes an attractive leisure experience for the preferred activities.
- ✓ Review of concept proposals by parks executive staff for comment is required.

Park Design Review:

The designer will need to prepare a general development plan and design that provides for visual attractiveness and stimulation in the park setting, and uses innovative design techniques to enhance site opportunities and mitigate constraints. The designer will need to further refine the park plan to meet the design program. This plan should be supported by a design report that explains the reasons for selecting or discarding of alternative and preferred concepts/ Colored sections, elevations, and perspective sketches might be necessary to show the character of key design elements such as plant materials, structures, walkways, entry view, etc. These graphics should explain the design intent to the general public, and indicate type, color and quality of materials. This plan and report should be in presentation format and be accompanied with a preliminary cost estimate.

The design drawings of the illustrative site plan, elevation, and perspective sketches, in appropriate format should be circulated to the Operations & Maintenance, Development and Executive Management for review and approval. The report should be in 8"1/2" x 11" format, typed, reproducible. Reduced size (11" x 17" of the site plan, cross-sections, elevations, and perspective graphics should be included in the report for review by the Parks Department prior to any public presentation. The public presentation of the park site plan should be at a maximum 1"=20'-0" scale, colored, notated and have supporting colored graphics such as sections, elevations, perspectives at suitable scale for public viewing.

Completion and review of detailed construction drawings, specifications, and related contract documents follows approval of the development plan. Changes in character, quantity and quality of design elements and materials from those approved during the public presentation should be discussed with park staff and brought to all park divisions for review and comment, etc. and should be provided in both hard copy (with registered stamp) and digital format. Plan and detail drawings should be 24" x 36" accompanied with the digitized drawings in Autocad R2000 or later version.



Input from public meetings is essential for a successful project.

Design Principles

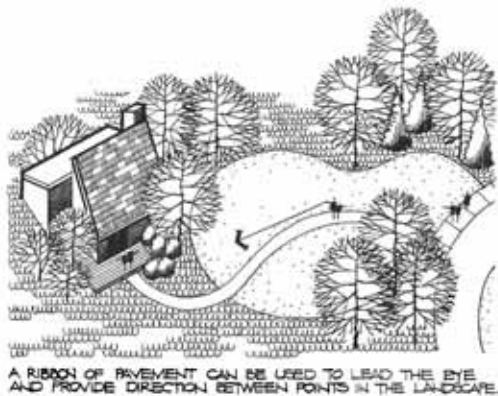
The following design principles create optimum park relationships and inspire good park design that produces an attractive facility and enjoyable recreational experience for the community.

- ✓ The essential elements of design, including scale, harmony, contrast, repetition, dynamic balance, color and sequence, are important to providing an attractive and interesting park experience.
- ✓ Scale and proportion of all park elements should be compatible and promote unity in overall park design.
- ✓ Human scale and visual detail should be used to stimulate enduring use of the Park.
- ✓ Entry design elements should provide useful visual cues for the visitor.
- ✓ Spatial areas should be designed to provide for a sense of relaxation, or dynamic action, or delight/enjoyment/calm, etc., through spatial modulation, sequence, and the harmonious relationship of design elements.
- ✓ Plant material color, texture, form, scale, and grouping should be used creatively to provide focus, interest, drama, and a perceptible character to the park and its features.
- ✓ Size and visual character of trees should be in proportion to their setting and the overall design intent.
- ✓ Choice & placement of plant materials should satisfy:

Environmental conditions (soil, water, climate, sun/wind exposure)

Cultural conditions (evocative impressions and images)

Functional conditions (durability, maintenance, longevity, conservation)



Aesthetic conditions (tree shape quality: soft, airy, bold majestic)

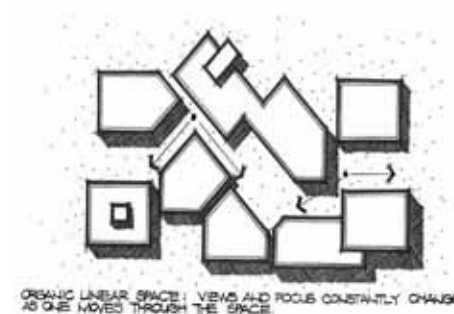
- ✓ Circulation routes for park users should be designed in relation to their function; paths should guide and encourage appropriate movement.

These areas should be designed to provide for pleasant transitions:

- Active-Passive
- Formal-Informal
- Natural-Structured
- Vehicle-Pedestrian

When designing consider the following criteria to develop park character:

- ✓ Structures should be designed and sited as integral components of the larger landscape setting.
- ✓ Design of play areas for children should promote curiosity, wonder, challenge, fun, safety and shelter.
- ✓ Park design should seek to create a distinctive site character, in context with its surroundings, and establish a setting that encourages neighborhood interaction.
- ✓ Park design should weigh the use of shelter/gazebo/amphitheater as focal architectural elements or visual landmarks.
- ✓ Design of a park should enhance pedestrian and bicycle access/arrival, while minimizing parking.
- ✓ Potential conflicting activities should be resolved in the design process.



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Access:

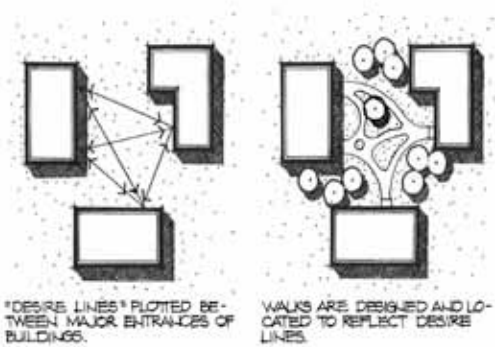
- ✓ On street parking is preferred for neighborhood parks to allow for the greatest park-use area.
- ✓ Bicycle access/parking facilities should be provided as part of the design program.
- ✓ American Disability Act (ADA) compliance is required for all new park elements.

Circulation:

- ✓ Circulation conflicts between pedestrians, bicycles, and autos should be minimized/mitigated.
- ✓ Primary pedestrian walks should be a minimum of 4'-6' wide (width to be determined by use).
- ✓ Walkways with alternate maintenance vehicle access should be a minimum of 8' wide and designed for load.
- ✓ Concrete is the preferred hard-surfacing for primary circulation routes.

Play Zones:

- ✓ Play/Activity areas should be designed for the appropriate age and activity levels.
- ✓ Play space for children should provide an appropriate mix of play types such as challenge, discovery, enclosure, and natural play. This mix should use the appropriate setting, space and surfacing for each play type.



Site Drainage:

- ✓ Natural flow patterns of a site should be incorporated into the design of facilities where appropriate.
- ✓ To minimize maintenance, surface flow is preferred over culverts.
- ✓ Primary use areas should have positive drainage to an appropriate collector.
- ✓ Turf fields should have a minimum 1% slope to provide positive surface drainage.

Landform:

- ✓ Use landforms to create park spaces and recreational experiences.
- ✓ Park design should work with the landform and accentuate positive site features.
- ✓ Detention/retention basin slopes should be a minimum 6:1 in order to minimize maintenance
- ✓ Berms should be a minimum of 4:1, unless design feature requires otherwise.

**Landscape Character:**

- ✓ The design of the park should provide for coherence and quality in the use of plant materials (trees, shrubs, and ground-cover) and retain valuable trees and vegetation where appropriate.
- ✓ The use of trees in the design should provide for a recognizable landscape character such as formal/informal, rustic/urban, riparian/upland. Consider seasonal appearances of trees. Use large-scale trees where appropriate.
- ✓ Parks should have a predominantly deciduous tree cover and grouping to ac-

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count for climate extremes and seasonal winds.

Spatial Organization:

- ✓ The design should incorporate the elements of spatial organization: appropriate area, form, enclosure, containment, grouping, and transition for the various levels of activity, and experience intended for the park.

Visual Elements:

- ✓ The design should incorporate visual techniques such as screening, sequence, enhancement of appropriate visual elements and create sense of drama, interest, and exploration.
- ✓ Artistic/sculptural/focal elements can be an ingredient of good park design.
- ✓ Color, texture, and form should reinforce overall design of park.

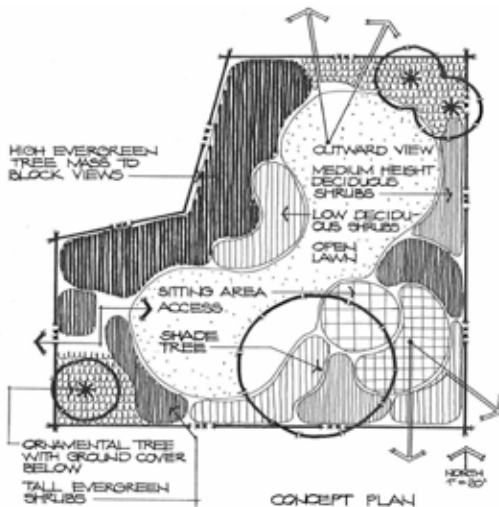


Energy/Water Conservation:

- ✓ Energy conservation site planning should include solar access, wind mitigation, conservation of soil and water, energy efficiency, and pedestrian/bicycle accessibility.
- ✓ The following principles of xeriscape landscaping should be considered and incorporated into the park landscape areas:

Xeriscape Principles:

- Planning and design
- Soil analysis and improvements
- Practical turf areas



- Appropriate plant selection
- Efficient irrigation
- Artificial turf feasibility
- Mulching
- Appropriate maintenance

Quality of Materials/Construction:

- ✓ Materials and products should be of a durable, attractive, appropriate, and consistent quality throughout.
- ✓ To ensure park facilities satisfy jurisdictional building requirements, use current uniform building codes (UBC) and standard specifications for public works for any construction work in parks.
- ✓ Certain materials/products can be designated as standard park components to unify elements within the park system. (See Standard Park Components on page 54).
- ✓ American Nurseryman's Association standards for plant materials are the preferred standard.

Lighting:

- ✓ Lighting should serve both functional and aesthetic considerations, and be energy efficient.
- ✓ Lighting should provide appropriate illumination for secure evening use of facilities, to discourage vandalism, and to enhance the visual ambience of the park.



Xeriscaping refers to landscaping in ways that do not require supplemental irrigation. It is promoted in areas that do not have easily accessible supplies of fresh water.

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- ✓ Light standards should be appropriate in size, color, material and scale to the setting. Provide automatic sensor controls for efficiency. Reinforce the design style of the park with appropriate luminaries .

Maintenance / Vandalism:

- ✓ Maintenance should be a clear design consideration, while not impeding innovative and interesting park design.
- ✓ Principles of defensible space should be apparent in the design.
- ✓ Materials that are durable, modular, and vandal-resistant are preferred.
- ✓ Surveillance by the neighborhood and park ranger should be considered in park design development.

Detention / Retention Basins:

- ✓ Detention / retentions basins should be designed early in the development process in order to calculate size of basins to offset pervious improvements.
- ✓ Grading design should account for 100 year flood conditions in order to keep structures, recreational equipment, and support elements out of flood zones.
- ✓ Urban run-off can be hazardous requiring warning signs that indicate the quality/depth of run-off. Monitoring during flooding is necessary to protect park users from contamination.
- ✓ Soils should be tested to indicate probable 'drying out' times after inundation, and/or depths to groundwater.
- ✓ Detention / Retention basins should have naturalistic/attractive contouring. The recommended minimum slope is 6:1.



Graffiti, if not controlled, can ultimately create the demise of a park.

- ✓ A range of plant materials that can sustain short-term inundation of water and contaminants should be considered in the design of a detention or retention basin.

Linear Park:

- ✓ Linear parks should have sufficient width to buffer adjacent land-use and provide enough space for landscaping, walks and paths.
- ✓ Linear park sidewalks are not to be considered as substitutes for on-street bike lanes.
- ✓ Lighting for evening walking and security are an essential consideration.
- ✓ Walkways adjacent to roadways should be separated from the road by a minimum 10' planting buffer zone.
- ✓ Turf areas should be minimized; other living ground cover is preferred.
- ✓ Curb ramps along the primary travel path should have sensory truncated domes at curbs and landings.
- ✓ Curb ramps and sidewalks should be arranged to provide for auto/pedestrian safety and visibility at intersections/crossings.
- ✓ Curb ramps should install one (1) removable bollard on centerline for 8' or 10' wide pathways to inhibit vehicle access, when appropriate.



Bioswales are landscape elements designed to remove silt and pollution from surface runoff water.

Standard Park Components

Standardizing park elements allow for efficiencies in maintenance and repairs. Standardization also provides for reliability of materials inventory and minimizing training to staff. Importantly, standardization of park elements communicates to the park visitor a unifying reassuring identity and image of the park visit. Substitutions may be appropriate to accommodate a special park design.

A List of some typical park elements that might be considered for standardization:

- Benches
- Bicycle Rack/Storage
- Camp grounds with electrical, sewer, water connections
- Drinking Fountain
- Entry booths
- Fencing
- Flag Pole
- Irrigation
- Lighting
- Other recreational elements (skate-park, exercise equipment, etc)
- Parking lots
- Playground equipment
- Playground safety surfacing
- Ramps for ADA compliance
- Restroom facilities (sewer connected, septic, vaulted)
- Retaining walls
- Security (cameras, emergency communication)
- Shade structures/pavilions/gazebos
- Signage (identifier, directional, warning, regulation)
- Sport fields/courts
- Storm drains
- Tables/Grills
- Trash receptacles
- Walks / Multi-use trails

Internal Design Review Process:

1. Understand the broad design concepts and issues (opportunities & constraints).
2. Consider the program and goals for the park.
3. Are the primary objectives of the park, as identified in the scope of work supported in the plans and specifications?
4. Evaluate how the detail of the plan realizes the goals and objective for the park.
5. Understand the concept, major use areas, circulation patterns, special structure.

*Conduct an opportunity
& constraints analysis of
all site specific issues.*

Provide a site analysis and ask the following questions:

1. What is the nature of the park to its surrounding site?
2. What is the relation of activity areas to the park site?
3. Is the relation of activity area to adjacent activity area appropriate, functional?
4. Are major structures located at strategic locations for visual clarity of the circulation system?
5. Is the circulation pattern sensible, appropriate and address security issues?
6. Are the spatial areas of appropriate size and create the intended experience?
7. Do the design details reinforce the intended aesthetic character of the park?
8. Does the design provide for order and variety?
9. Are the stated goals and objectives for the park satisfied?



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ADDITIONAL COUNTY OF SAN DIEGO DESIGN RESOURCE WEB SITES:

COUNTY OF SAN DIEGO LANDSCAPE ORDINANCE, INCLUDING DROUGHT TOLERANT AND NATIVE PLANT LISTS:

http://www.sdcountry.ca.gov/dplu/Landscape-Ordinance_Design_Review_Manual.html

COUNTY OF SAN DIEGO DEFENSIBLE SPACE DESIGN GUIDELINES FOR FIRE RESISTANT PLANNING:

http://www.sdcountry.ca.gov/dplu/fire_resistant.html

COUNTY OF SAN DIEGO LOW IMPACT DESIGN (LID) MANUAL:

<http://www.sdcountry.ca.gov/dplu/docs/LID-Handbook.pdf>

For a larger map, contact County Parks, GIS unit.

APPENDIX

SAMPLE ACTIVE LIVING ATTRIBUTE MATRIX TO EVALUATE ACTIVITY LEVELS IN COUNTY PARKS

ACTIVE LIVING ATTRIBUTES CHECKLIST BY PARK										
PARK NAME:	ATTRIBUTES									
	AESTHETICS	SAFE & CLEAN	ACCESSIBLE & WALKABLE	ACTIVITY FRIENDLY FOR SENIORS	INNOVATIVE ELEMENTS	CREATIVE REC PROGRAMMING	SOCIO-CULTURAL CHARACTERISTICS	NON-TRADITIONAL PARTNERSHIPS	ECONOMIC BENEFITS TO NEIGHBORHOODS	REVENUE OPPORTUNITIES FOR PARKS
Agua Caliente										
Bancroft										
Cactus										
Clemmens Lane										
Collier										
Damon Lane										
Don Dussault										
Dos Picos										
El Monte										
Eucalyptus Park										
Fallbrook Comm. Ctr.										
Felicita										
Flinn Springs										
Goodan Ranch										
Goodland Acres										
Guajome										
Heritage Park										
Hillsdale										
Hilton Head										
Jess Martin										
Julian Museum, Pioneer										
Lake Morena										
Lakeside Comm. Ctr.										
Lakeside Teen Center										
Lamar										
Lincoln Acres										

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